

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	<b>MAIL STOP AMENDMENT</b>
Toshiyasu Higuma et al.	)	Group Art Unit: 2442
Application No.: 10/529,869	)	Examiner: JASON D RECEK
Filed: October 4, 2005	)	Confirmation No.: 2255
For: COMMUNICATION ADAPTER	)	
APPARATUS, COMMUNICATION	)	
ADAPTER, METHOD OF WRITING	)	
DATA IN NONVOLATILE MEMORY,	)	
AND ELECTRIC APPARATUS AND	)	
ROM WRITER USED FOR THE	)	
METHOD	)	

**AMENDMENT**

Commissioner for Patents  
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Sir:

In response to the Office Action dated December 21, 2010, please amend the  
above-identified patent application as follows:

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Previously Presented) A communication adapter apparatus that connects one of plural connection object apparatuses having an apparatus object consisting of information, which is based on functions of the apparatuses, and operable control items, respectively and a network to which a controller for remotely controlling the connection object apparatus is connected, comprising:

communication control means that controls transmission and reception of data to and from the network;

apparatus communication managing means that copies and saves the apparatus object, saves a procedure for a communication service of the communication control means, and makes it possible to use the connection object apparatus from the network using these saved data; and

apparatus interface means that is defined by standards common to all the apparatuses in order to make all the plural connection object apparatuses connectable,

wherein the apparatus communication managing means includes:

an apparatus interface access unit that interfaces with the apparatus interface means according to a procedure common to the connection object apparatuses;

an apparatus control access unit that interfaces with the communication control means according to the common procedure;

first access control means that permits or prohibits access to the apparatus interface access unit from the apparatus object of the connection object apparatus based on an operation of the communication control means; and

second access control means that permits or prohibits access to the apparatus control access unit from the communication control means based on an operation of the apparatus object of the connection object apparatus via the apparatus interface means.

2. (Currently Amended) ~~[[A]]~~ The communication adapter apparatus according to claim 1, further comprising:

a ~~wherein the~~ power supply managing means that manages a charged capacity inside an adapter, wherein ~~and controls~~ the communication control means ~~[[to limit]]~~ limits communication according to a management state of the power supply managing means.

3. (Currently Amended) The ~~[[A]]~~ communication adapter apparatus according to claim 1, ~~wherein the~~ further comprising:

a power supply managing means that manages a charged capacity inside an adapter, ~~and controls~~ wherein the apparatus communication managing means ~~[[to limit]]~~ limits accesses to the apparatus object according to a management state of the power supply managing means.

4. (Canceled)

5. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 1, wherein each of the apparatus interface access unit and the apparatus control access unit includes at least one of object managing means that performs management tasks including generation, deletion, and addition of instances and classes of the apparatus object, state acquisition procedure setting means that sets setting values held by the connection object apparatuses, a procedure for acquiring notifications including a state, a state change, and a periodical notification, installation information managing means that sets and provides information on installation or arrangement of the connection object apparatuses, network attribute managing means that sets and provides attribute information concerning the network, and network band managing means that sets and provides information related to a communication band of the network.

6. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 1, wherein, when the connection object apparatuses are not yet connected, the apparatus communication managing means generates an imaginary apparatus object on the basis of a setting command, transmission of which is received via the network, and saves the imaginary apparatus object instead of the apparatus object.

7. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 1, wherein the apparatus communication managing means

provides an imaginary apparatus in the apparatus control access unit on the basis of a setting command, transmission of which is received via the network, performs operation and setting for this imaginary apparatus and acquisition of a state involved in the operation and setting, and performs setting for running and stop of the apparatus object and acquisition of a state involved in the setting with the apparatus interface access unit.

8. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 1, wherein the apparatus communication managing means further includes:

a database that holds installation information for the apparatus object, and each of the apparatus interface access unit and the apparatus control access unit includes writing/reading means that writes the installation information held by the database in and reads out the installation information to the connection object apparatuses.

9. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 1, wherein each of the apparatus interface access unit and the apparatus control access unit includes:

abnormality notifying means that detects in which of the apparatus interface; the communication control means; network interface means; and apparatus object abnormality has occurred and provides the network or the connection object apparatuses with information on the detected abnormality.

10. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 9, wherein the communication adapter apparatus provides the network with the abnormality information when data transmission through the network is possible and provides the connection object apparatuses with the abnormality information when data transmission through the network is impossible.

11. (Currently Amended) The **[[A]]** communication adapter apparatus according to claim 2, wherein the apparatus communication managing means limits communication to the communication control means according to a state of the power supply managing means using at least one of the apparatus interface access unit and the apparatus control access unit.

12. - 16. (Canceled)

17. (Withdrawn) A writing method consisting of an electrical apparatus incorporating a nonvolatile memory in which data is rewritable when a writing control terminal is pulled down or pulled up to a predetermined voltage; and a ROM writer that writes data in this nonvolatile memory, wherein the electrical apparatus includes a generation circuit for generating the predetermined voltage and the ROM writer includes means that connects the predetermined voltage generated by the generation circuit to the writing control terminal.

18. (Withdrawn) An electrical apparatus constituting the writing method according to claim 17 further comprising an interface that includes: the writing control

terminal; and a voltage terminal that outputs the predetermined voltage generated by the generation circuit.

19. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 18, further including means to be connected to the interface and the means short-circuits the writing control terminal and the voltage terminal when connected to the interface.

20. (Withdrawn) A writing method consisting of an electrical apparatus incorporating a nonvolatile memory in which data is rewritable when a writing control terminal is pulled down or pulled up to a predetermined voltage; and a ROM writer that writes data in this nonvolatile memory, wherein the electrical apparatus has an interface including the writing control terminal and a setting circuit for setting the writing control terminal to the predetermined voltage, and the ROM writer has an interface including trigger means that can be connected to the interface and turns ON the setting circuit when the trigger means is connected to the interface.

21. (Withdrawn) An electrical apparatus constituting the writing method according to claim 20, wherein the setting circuit is a circuit unit consisting of a light-receiving element that turns ON/OFF an operation for setting the writing control terminal to the predetermined voltage according to whether the light-receiving element receives light of a specific wavelength exceeding a predetermined intensity.

22. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 21, wherein the trigger unit is a circuit unit consisting of a light-emitting element that irradiate light of a specific wavelength on the light-receiving element.

23. (Withdrawn) An electrical apparatus constituting the writing method according to claim 20, wherein the setting circuit is a circuit unit consisting of a relay for turning ON/OFF an operation for setting the writing control terminal to the predetermined voltage according to whether the relay gives a specific current to a coil control line.

24. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 23, wherein the trigger unit is a circuit unit including a voltage terminal that gives a specific current to the coil control line.

25. (Withdrawn) An electrical apparatus constituting the writing method according to claim 24, wherein the setting circuit is a circuit unit consisting of a mechanism switch that turns ON/OFF an operation for setting the writing control terminal to the predetermined voltage according to whether the mechanism switch is pushed in.

26. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 25, wherein the trigger unit is a projection for pushing in the mechanism switch.



27. (Withdrawn) An electrical apparatus constituting the writing method according to claim 20, wherein the setting circuit is a circuit unit consisting of a thermostatic lead switch that turns ON/OFF an operation for setting the writing control terminal to the predetermined voltage according to whether the thermostatic lead switch is heated.

28. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 27, wherein the trigger unit is a heater for heating the thermostatic lead switch.

29. (Withdrawn) An electrical apparatus constituting the writing method according to claim 20, wherein the setting circuit is a circuit unit consisting of a magnetic lead switch that turns ON/OFF an operation for setting the writing control terminal to the predetermined voltage according to whether magnetism is applied to the magnetic lead switch.

30. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 29, wherein the trigger unit is a magnet or an electromagnet for applying magnetism to the magnetic lead switch.

31. (Withdrawn) A writing method consisting of an electrical apparatus incorporating a nonvolatile memory in which data is rewritable when a writing control terminal is pulled down or pulled up to a predetermined voltage; and a ROM writer

that rewrites data in this nonvolatile memory, wherein the electrical apparatus includes, in an interface, the writing control terminal; switching means that switches the writing control terminal to the predetermined voltage; a signal terminal; and separating means that separates a signal inputted to the signal terminal into a data signal for writing and a trigger signal for controlling the switching means, and the ROM writer includes an interface including means that can be connected to the interface and outputs a synthesized data signal, which is obtained by synthesizing the data signal for writing and the trigger signal for controlling the switching means, to the signal terminal when the means is connected to the interface.

32. (Withdrawn) An electrical apparatus constituting the writing method according to claim 31, wherein the separating means includes a low-pass filter and the switching means includes a flip-flop.

33. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 32, wherein the synthesized data signal is a logical product of the data signal for writing and a clock signal.

34. (Withdrawn) A ROM writer connected to the electrical apparatus according to claim 32, wherein the synthesized data signal is a signal in which a start bit signal and the data signal for writing are arranged in this order.

## REMARKS

This communication is a full and timely response to the non-final Office Action dated December 21, 2010, with the period for response being extended through a Request for Extension of Time submitted herewith. Claims 1-3 and 5-11 remain pending, where claims 17-34 are withdrawn and claims 4 and 12-16 were previously canceled. By this communication claims 2, 3, and 5-11 are amended.

### **Priority**

Applicants request that the Examiner acknowledge Applicants claims for foreign priority in the next communication.

### **Rejection Under 35 U.S.C. §112**

Claims 1-3 and 5-11 are rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. Applicants respectfully traverse this rejection.

The Examiner alleges that Applicants' "means" limitations do not have a corresponding algorithm and computer structure as required under 35 U.S.C. §112, sixth paragraph. Applicants disagree and provide the following table which maps the recited "means" to the corresponding structure in the disclosure.

Claim	Feature	Specification	Drawing
1	communication control means	pg. 24, line 24 to pg. 25, line 24; pg. 31, line 24 to pg. 35, line 11.	Figs. 1-8, ref. 6
	apparatus communication managing means	pg. 24, lines 19-23; pg. 31, line 24 to pg. 35, line 11	Figs. 1-8, ref. 5

Claim	Feature	Specification	Drawing
	apparatus interface means	pg. 24, lines 16-18; pg. 31, line 24 to pg. 35, line 11	Figs. 1-8, ref. 4
<b>1</b>	first access control means	permitting means 12, prohibiting means 13; pg. 32, lines 16-20; pg. 33, line 17 to pg. 34, line 12	Fig. 3, refs. 12, 13
	second access control means	permitting means 14, prohibiting means 15; pg. 32, lines 9-12; pg. 32, line 23 to pg. 33, line 16	Fig. 3, refs. 14, 15
<b>2, 3</b>	power supply managing means	pg. 27, line 14 to pg. 31, line 21; pg. 50, line 7 to pg. 54, line 22	Figs. 2 and 8, ref. 9
<b>5</b>	object managing means	pg. 35, line 14 to pg. 42, line 8	Fig. 4
	state acquisition procedure setting means	pg. 35, line 14 to page. 42, line 8	Fig. 4
	installation information managing means	pg. 35, line 14 to pg. 42, line 8	Fig. 4
	network attribute managing means	pg. 35, line 14 to pg. 42, line 8	Fig. 4
	network band managing means	pg. 35, line 14 to pg. 42, line 8	Fig. 4

Claim	Feature	Specification	Drawing
9	abnormality notifying means	network interface abnormality means; communication control abnormality means; apparatus interface abnormality means; apparatus abnormality means; pg. 47, line 14 to pg. 50, line 4	Fig. 7

For at least the reasons provided in the preceding table, Applicants submit that the "means" feature recited claims 1-3 and 5-11 comply with 35 U.S.C. §112, sixth paragraph such that withdrawal of this rejection is warranted.

#### **Rejections Under 35 U.S.C. §103**

Claims 1 and 5-10 are rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Howard et al.* (US 6,728,804) in view of *Kelly et al* (U.S. Patent Publication No. 2005/005167); claims 2-3 and 11 are rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Howard* and *Kelly* in view of *Van der Meulen* (US 6,906,617). Applicants respectfully traverse these rejections because *Kelly* is not prior art.

The instant application is a national stage application of PCT/JP03/12600 filed on October 11, 2003. The PCT application claims priority to the following Japanese applications: JP 2002-289469 filed October 2, 2002; JP 2002-290868 filed October 3, 2002; and JP 2003-64423 filed March 11, 2003. A certified translation of each priority document is submitted herewith.

*Kelly*, on the other hand, has a filing date of August 25, 2003, which is later than any of Applicants' priority documents. Because the Examiner relies on *Kelly* to remedy the acknowledged deficiencies of *Howard*, and *Kelly* is hereby established as not being prior art, Applicants request that all rejections under 35 U.S.C. §103 are improper and their withdrawal is respectfully requested.

### CONCLUSION

Based on at least the foregoing amendments and remarks, Applicants submit that claims 1-3 and 5-11 are allowable, and this application is in condition for allowance. In the event any issues adverse to patentability remain, the Examiner is invited to contact Applicants' representative towards resolving these issues.

Respectfully submitted,

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